

## EAST Search History

| Ref # | Hits  | Search Query   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|-------|--|---|------------------|---------|---------------------|
| S30   | 2     | ("6777677").PN.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2008/06/10<br>16:30 |
| S31   | 4700  | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with root   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/06/10<br>16:36 |
| S32   | 117   | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with root with (die<br>or semiconductor or<br>wafer or chip)                          | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/06/10<br>16:37 |
| S33   | 74038 | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with root with size<br>or location with (die or<br>semiconductor or<br>wafer or chip) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2008/06/10<br>16:38 |

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|-----|-----|--|---|----|-----|---------------------|
| S34 | 1   | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with size with location with (die or semiconductor or wafer or chip) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>16:38 |
| S35 | 2   | "20050049836"  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>16:39 |
| S36 | 117 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip)                         | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>16:56 |
| S37 | 2   | ("6888674").PN.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2008/06/10<br>17:04 |
| S38 | 119 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or inspect\$4) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip)           | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>17:09 |

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| S39 | 1  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with auger   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:15 |
| S40 | 17 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with (state or status or condition)                  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:17 |
| S41 | 1  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and chemical\$4 with (analyz\$3 or analys\$3 or diagnos\$3) with (state or status or condition) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:17 |

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|-----|----|---|---|----|----|---------------------|
| S42 | 1  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with (state or status or condition) and phase with particle | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:18 |
| S43 | 7  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with (scan or delayer or depth)                             | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:18 |
| S44 | 16 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with (mapping or match\$3)                                  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:21 |

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| S45 | 5 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (analyz\$3 or analys\$3 or diagnos\$3) with (mapping or match\$3) and compar\$4 with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with pattern                                 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:22 |
| S46 | 5 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (analyz\$3 or analys\$3 or diagnos\$3) with (mapping or match\$3) and compar\$4 with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with pattern | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:23 |

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| S47 | 4 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (analyz\$3 or analys\$3 or diagnos\$3) with (mapping or match\$3) and compar\$4 with (predetermined or preset\$4 or predefined or reference or desired or expected or threshold or basic or histor\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with pattern              | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:24 |
| S48 | 4 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$5) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (analyz\$3 or analys\$3 or diagnos\$3) with (mapping or match\$3) and compar\$4 with (predetermined or preset\$4 or predefined or reference or desired or expected or threshold or basic or histor\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with pattern | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>17:25 |

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| S49 | 1  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>17:28 |
| S50 | 14 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>17:29 |
| S51 | 2  | ("6777674").PN.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2008/06/10<br>17:34 |
| S52 | 0  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/10<br>17:39 |

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|-----|----|--|---|----|----|------------------|
|     |    | size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and ".mu.m"  |   |    |    |                  |
| S53 | 0  | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with root and ".mu.m"                         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/10 17:40 |
| S54 | 0  | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with root and ".mu.m"                         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/10 17:40 |
| S55 | 1  | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with root and single with phase with particle | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/10 17:42 |
| S56 | 44 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with root and phase with particle             | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/10 17:43 |



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|-----|------|---|---|----|----|---------------------|
| S57 | 1213 | 702/117.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/10<br>18:12 |
| S58 | 426  | 702/58.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>10:26 |
| S59 | 5    | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3 or measur<br>\$6) with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with root and<br>(defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>size with location with<br>(die or semiconductor<br>or wafer or chip or IC<br>or integrated adj<br>circuit) and (adjust\$4<br>or correct\$4 or<br>compensat\$4 or modif<br>\$5 or calibrat\$4) with<br>process\$3 with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>11:53 |
| S60 | 11   | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>root and (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with size with<br>location with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (adjust\$4 or correct<br>\$4 or compensat\$4 or   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>11:58 |

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|     |   | modif\$5 or calibrat\$4)<br>with process\$3 with<br>(die or semiconductor<br>or wafer or chip or IC<br>or integrated adj<br>circuit)  |   |    |    |                     |
| S61 | 6 | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>root and (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with size with<br>location with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (adjust\$4 or correct<br>\$4 or compensat\$4 or<br>modif\$5 or calibrat\$4)<br>with process\$3 with<br>(die or semiconductor<br>or wafer or chip or IC<br>or integrated adj<br>circuit) not S59 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>12:00 |
| S62 | 0 | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3 or measur<br>\$6) with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with root and<br>(defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>size with location with<br>(die or semiconductor<br>or wafer or chip or IC<br>or integrated adj<br>circuit) and focus with<br>ion with beam   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:34 |

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|-----|---|---|---|----|----|------------------|
| S63 | 1 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and focus with ion with beam                       | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:34 |
| S64 | 8 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and focus\$3 with ion with beam                    | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:35 |
| S65 | 0 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and focus\$3 with ion with beam same cross-section | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:36 |

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| S66 | 0  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and ion with beam same cross-section                            | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:36 |
| S67 | 0  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with size with location with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and ion with beam same (cross\$3 with section or cross-section) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:37 |
| S68 | 27 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with (size or location) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and focus\$3 with ion with beam                                 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:38 |

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| S69 | 5 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with (size or location) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and focus\$3 with ion with beam same (cross \$3 with section or cross-section) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:38 |
| S70 | 2 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root and (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with (size or location) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and scan\$4 with auger with microscopy   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:49 |
| S71 | 3 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with root and scan \$4 with auger with microscopy  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>13:50 |

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| S72 | 2  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (semiconductor or chip or wafer or IC or integrated adj circuit) and scan\$4 with auger with microscopy   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:53 |
| S73 | 2  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (semiconductor or chip or wafer or IC or integrated adj circuit) and scan\$4 with auger with microscopy   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:53 |
| S74 | 6  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (semiconductor or chip or wafer or IC or integrated adj circuit) and (auger with electron with spectroscopy or scan\$4 with auger with microscopy)                        | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 13:54 |
| S75 | 58 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (semiconductor or chip or wafer or IC or integrated adj circuit) and (auger with electron with spectroscopy or scan\$4 with auger with microscopy) and focus \$3 with ion with beam | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 14:03 |

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|-----|---|---|---|----|----|---------------------|
| S76 | 8 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (semiconductor or chip or wafer or IC or integrated adj circuit) and (auger with electron with spectroscopy or scan\$4 with auger with microscopy) and cut\$4 with focus\$3 with ion with beam  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:04 |
| S77 | 2 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (semiconductor or chip or wafer or IC or integrated adj circuit) and (auger with electron with spectroscopy or scan\$4 with auger with microscopy) and cut\$4 with focus\$3 with ion with beam same (cross \$3 with section or cross-section)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:04 |
| S78 | 3 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (semiconductor or chip or wafer or IC or integrated adj circuit) and (auger with electron with spectroscopy or scan\$4 with auger with microscopy or energy with dispersive with spectrometer) and cut \$4 with focus\$3 with ion with beam same (cross\$3 with section or cross-section) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:09 |

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| S79 | 34 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor\$6 or classify\$3 or classified) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5)              | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:21 |
| S80 | 12 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor\$6 or classify\$3 or classified) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with process | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:22 |



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|-----|----|--|---|----|----|---------------------|
| S81 | 9  | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3 or measur<br>\$6) with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with root with (die<br>or semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (class or<br>classification or categor<br>\$6 or classify\$3 or<br>classified) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with analysis | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:23 |
| S82 | 14 | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3 or measur<br>\$6) with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with root with (die<br>or semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (class or<br>classification or categor<br>\$6 or classify\$3 or<br>classified) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with type     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:23 |

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|-----|---|---|---|----|----|---------------------|
| S84 | 1 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor\$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type not S82 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:31 |
| S85 | 6 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor\$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type not S82   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:32 |

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|-----|------|---|---|----|----|---------------------|
| S86 | 2312 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type not S82  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:33 |
| S87 | 1544 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified) with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with type not S82   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:34 |
| S88 | 1332 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>14:34 |

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|-----|----|--|---|----|----|------------------|
|     |    | or problem or disorder or abnormal\$5) with type   |   |    |    |                  |
| S89 | 24 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type not S82 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 14:35 |
| S92 | 38 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:02 |
| S93 | 33 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor \$6 or classify\$3 or classified) with (defect   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:10 |

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|-----|-----|---|---|----|----|---------------------|
|     |     | or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type  |   |    |    |                     |
| S94 | 15  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (class or classification or categor\$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:26 |
| S95 | 123 | "5991699".uref.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:29 |
| S96 | 26  | "5991699".uref. and (class or classification or categor\$6 or classify\$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:29 |

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|------|----|--|---|----|----|------------------|
| S97  | 0  | "5991699".uref. and (class or classification or categor\$6 or classify \$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with type and (point with scan or delayer or depth with profile) with analysis  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:34 |
| S98  | 1  | (class or classification or categor\$6 or classify \$3 or classified or table) with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with type same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point with scan or delayer or depth with profile) with analysis | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:35 |
| S99  | 51 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with type same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point with scan or delayer or depth with profile) with analysis   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:36 |
| S100 | 17 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point with scan or delayer or depth with profile) with analysis  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:37 |

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|------|----|---|---|----|----|---------------------|
| S101 | 1  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point adj scan or delayer or depth adj profile) same chemical with analysis | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:39 |
| S102 | 5  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point adj scan or delayer or depth adj profile) same chemical with analysis            | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:43 |
| S103 | 82 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point adj scan or delayer or depth adj profile) same chemical                          | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:43 |
| S104 | 1  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and point adj scan with delayer with depth adj profile same chemical                        | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:44 |

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|------|-----|--|---|----|----|------------------|
| S105 | 1   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and point adj scan with delayer with depth adj profile same chemical with analysis | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:45 |
| S106 | 1   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and point adj scan with delayer with depth adj profile same chemical with analysis | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:46 |
| S107 | 1   | point adj scan with delayer with depth adj profile same chemical with analysis   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:46 |
| S109 | 2   | point adj scan same chemical with analysis   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:47 |
| S110 | 1   | delayer same chemical with analysis  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:47 |
| S111 | 128 | depth with profile same chemical with analysis   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:47 |
| S112 | 49  | depth with profile with chemical with analysis   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 15:48 |



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|------|-----|--|---|----|----|---------------------|
| S113 | 1   | depth with profile with chemical with analysis with (die or semiconductor or wafer or chip or IC or integrated adj circuit)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:48 |
| S114 | 0   | point with scan\$4 with chemical with analysis with (die or semiconductor or wafer or chip or IC or integrated adj circuit)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:50 |
| S115 | 0   | point with scan\$4 with chemical with analysis same (die or semiconductor or wafer or chip or IC or integrated adj circuit)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:51 |
| S116 | 7   | point with scan\$4 with chemical with analysis and (die or semiconductor or wafer or chip or IC or integrated adj circuit)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:51 |
| S117 | 1   | point adj scan with delayer with depth adj profile   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:56 |
| S118 | 2   | point adj scan with depth adj profile  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>15:56 |
| S119 | 751 | point with scan\$4 with analysis and (die or semiconductor or wafer or chip or IC or integrated adj circuit)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>16:03 |
| S120 | 4   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root same (die or semiconductor or wafer or chip or IC or integrated adj circuit) and point with scan\$4 with analysis | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>16:03 |

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|------|------|---|---|----|-----|---------------------|
| S121 | 2    | ("6734427").PN.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2008/06/11<br>16:07 |
| S122 | 3    | energy with dispers\$4<br>with spectrometer   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:11 |
| S123 | 1163 | energy with dispers\$4<br>with spectrometer   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:11 |
| S124 | 1    | energy with dispers\$4<br>with spectrometer with<br>thick with particle   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:12 |
| S125 | 1    | energy with dispers\$4<br>with spectrometer<br>same thick with<br>particle  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:12 |
| S127 | 0    | energy with dispers\$4<br>with spectrometer with<br>size same (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:13 |
| S128 | 19   | energy with dispers\$4<br>with spectrometer with<br>size  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:14 |
| S129 | 64   | (EDS or energy with<br>dispers\$4 with<br>spectrometer) with<br>(analyz\$3 or analys\$3)<br>with microscop\$4 with<br>particle  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:20 |
| S130 | 1    | energy with dispers\$4<br>with spectrometer with<br>thick with particle and<br>cut\$4 with (FIB or<br>focus with ion wiht<br>beam) with (cross-<br>section or cross\$3 wiht<br>section) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:21 |

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| S131 | 1  | energy with dispers\$4 with spectrometer with thick with particle and (FIB or focus with ion wiht beam) with (cross-section or cross\$3 wiht section)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:22 |
| S132 | 7  | (EDS or energy with dispers\$4 with spectrometer) with (analyz\$3 or analys\$3) with microscop\$4 with particle and auger with (analys\$3 or analyz\$3)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>16:23 |
| S133 | 3  | ((("6744266") or ("5985680") or ("5991699"))).PN.  | USPAT   | OR | OFF | 2008/06/11<br>16:28 |
| S134 | 5  | ((("6744266") or ("6734277") or ("5985680") or ("5991699") or ("5561293"))).PN.  | USPAT   | OR | OFF | 2008/06/11<br>16:30 |
| S135 | 28 | (US-20050049836-\$ or US-20080129988-\$ or US-20080115029-\$ or US-20080081385-\$ or US-20050004774-\$ or US-20020196969-\$ or US-20040252879-\$ or US-20050159909-\$ or US-20050177264-\$ or US-20050080572-\$ or US-20040122859-\$).<br>did. or (US-6516433-\$ or US-7337034-\$ or US-6466895-\$ or US-6407386-\$ or US-6392434-\$ or US-5787190-\$ or US-6971054-\$ or US-6777677-\$ or US-5985680-\$ or US-5991699-\$ or US-7020536-\$ or US-7071011-\$ or US-7359544-\$ or US-6744266-\$ or US-6734277-\$ or US-5561293-\$).did. or (US-6516433-B-\$ or US-5972728-\$).did. | US-PGPUB;<br>USPAT;<br>DERWENT                          | OR | ON  | 2008/06/11<br>16:31 |

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|------|---|---|---|----|-----|---------------------|
| S136 | 5 | ((("6744266") or ("6734477") or ("5985680") or ("5991699") or ("5561293")).PN.  | USPAT   | OR | OFF | 2008/06/11<br>17:34 |
| S137 | 5 | ((("6744266") or ("6734427") or ("5985680") or ("5991699") or ("5561293")).PN.  | USPAT   | OR | OFF | 2008/06/11<br>17:34 |
| S138 | 0 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with root with (die or semiconductor or wafer or chip) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (die or semiconductor or wafer or chip) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>17:58 |
| S139 | 2 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (die or semiconductor or wafer or chip)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/11<br>17:58 |

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|------|---|--|---|----|----|---------------------|
| S140 | 2 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer same (die or semiconductor or wafer or chip)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>17:59 |
| S141 | 1 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3) with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with root with (die or semiconductor or wafer or chip) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:00 |
| S142 | 3 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with root with (die or semiconductor or wafer or chip) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:00 |

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|------|----|--|---|----|----|---------------------|
| S143 | 68 | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3) with (defect<br>or fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with underlayer | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:01 |
| S144 | 24 | locat\$3 with (defect or<br>fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with underlayer  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:01 |
| S145 | 13 | locat\$3 with (defect or<br>fail\$3 or fault or<br>anomaly or malfunction<br>\$2 or error or problem<br>or disorder or abnormal<br>\$5) with underlayer<br>with (die or<br>semiconductor or<br>wafer or chip)                            | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:02 |
| S146 | 23 | type with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with underlayer<br>same (die or<br>semiconductor or<br>wafer or chip)                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:04 |
| S147 | 18 | type with (defect or fail<br>\$3 or fault or anomaly<br>or malfunction\$2 or<br>error or problem or<br>disorder or abnormal<br>\$5) with underlayer<br>with (die or<br>semiconductor or<br>wafer or chip)                                | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:05 |
| S148 | 18 | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>type with underlayer<br>with (die or<br>semiconductor or<br>wafer or chip)                                  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:05 |

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| S149 | 8  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (site or position or location) with (die or semiconductor or wafer or chip)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:07 |
| S150 | 8  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (site or position or location) same (die or semiconductor or wafer or chip)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:08 |
| S151 | 19 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (site or position or locat\$3) same (die or semiconductor or wafer or chip)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:09 |
| S152 | 19 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with underlayer with (site or position or locat\$3) with (die or semiconductor or wafer or chip)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:09 |
| S153 | 17 | (determin\$3 or monitor \$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur \$6) with (defect or fail \$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal \$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and underlayer with | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:11 |

|      |     |   |   |    |    |                  |
|------|-----|---|---|----|----|------------------|
|      |     | (site or position or locat\$3) with (die or semiconductor or wafer or chip)   |   |    |    |                  |
| S154 | 18  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6 or inspect\$4) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and underlayer with (site or position or locat\$3) with (die or semiconductor or wafer or chip) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:11 |
| S155 | 18  | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6 or inspect\$4) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with underlayer   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:13 |
| S156 | 101 | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6 or inspect\$4) with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or low\$3 adj layer or underlayer) not S155                                   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/11 18:19 |



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|------|-----|--|---|----|----|---------------------|
| S157 | 6   | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6 or inspect\$4) with cause with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or low\$3 adj layer or underlayer) not S155 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:22 |
| S158 | 0   | (determin\$3 or monitor\$3 or indicat\$3 or detect\$3 or identif\$4 or sens\$3 or measur\$6 or inspect\$4) with cause with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer) not S155                     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:22 |
| S159 | 112 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer) not S155  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:24 |

|      |     |  |   |    |    |                     |
|------|-----|--|---|----|----|---------------------|
| S160 | 10  | cause with (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer) not S155 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/11<br>18:24 |
| S161 | 1   | point adj scan with depth adj profile same chemical with analysis  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>13:29 |
| S162 | 224 | 702/59.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>13:48 |
| S163 | 528 | 702/65.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>14:14 |
| S164 | 789 | 702/185.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>14:15 |
| S165 | 555 | 702/181.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>14:15 |
| S166 | 380 | 702/155.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:17 |
| S167 | 514 | 702/81.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:18 |
| S168 | 527 | 702/84.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:18 |

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|------|------|---------------|---|----|----|---------------------|
| S170 | 956  | 714/736.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:18 |
| S171 | 100  | 714/737.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:19 |
| S172 | 306  | 714/732.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:19 |
| S173 | 3848 | 714/724.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:19 |
| S174 | 1284 | 714/763.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:19 |
| S175 | 1668 | 714/726.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:20 |
| S176 | 580  | 714/727.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:20 |
| S177 | 161  | 714/728.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:26 |
| S178 | 956  | 714/736.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:26 |
| S179 | 100  | 714/737.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:26 |

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|------|------|-------------------|---|----|----|---------------------|
| S180 | 1539 | 714/738.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:26 |
| S181 | 3492 | 714/718.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:26 |
| S182 | 423  | 714/723.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:30 |
| S183 | 1875 | 257/e21.525.ccls. | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:30 |
| S184 | 1757 | 257/751.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:47 |
| S185 | 556  | 257/752.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:47 |
| S186 | 3202 | 257/774.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:47 |
| S187 | 1140 | 324/763.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:48 |
| S188 | 5689 | 324/765.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:48 |
| S189 | 2137 | 700/121.ccls.     | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:53 |

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|------|------|---|---|----|----|---------------------|
| S190 | 454  | 700/109.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:53 |
| S191 | 619  | 700/110.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:56 |
| S192 | 723  | 700/95.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:56 |
| S193 | 1195 | 700/117.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:56 |
| S194 | 2137 | 700/121.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:58 |
| S195 | 2739 | 438/14.ccls.  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>17:58 |
| S196 | 759  | 382/149.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:00 |
| S197 | 4124 | 365/201.ccls.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:00 |
| S198 | 1    | scan with analy\$4<br>same delayer with analy<br>\$4 same depth with<br>profile with analy\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:04 |
| S199 | 1    | scan with analy\$4<br>same delayer with analy<br>\$4 and depth with<br>profile with analy\$4  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:05 |

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|------|----|---|---|----|----|---------------------|
| S200 | 1  | scan with analy\$4 and delayer with analy\$4 and depth with profile with analy\$4   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:05 |
| S201 | 3  | scan with analy\$4 and delay\$3 with analy\$4 and depth with profile with analy\$4  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>18:05 |
| S202 | 1  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (point with scan or delayer or depth with profile) with analysis and chemical\$2 with analy\$4 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>20:27 |
| S203 | 34 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (scan or delay\$3 or depth with profile) with analy\$4 and chemical\$2 with analy\$4           | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>20:28 |
| S204 | 25 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (scan or delay\$3 or depth with profile) with analy\$4 same chemical\$2 with analy\$4          | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/15<br>20:28 |

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|------|---|---|---|----|-----|---------------------|
| S205 | 6 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (scan or delay\$3 or depth with profile) with analy\$4 with chemical\$2 with analy\$4                  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/15<br>20:28 |
| S206 | 1 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and chemical\$2 with analy\$4 with "0.2"   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/15<br>20:29 |
| S207 | 5 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and chemical\$2 with analy\$4 with "0.2"  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/15<br>20:30 |
| S208 | 2 | ("5847821").PN.   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2008/06/15<br>20:34 |
| S209 | 8 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and locat\$3 with (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2008/06/16<br>09:37 |

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|      |    | or abnormal\$5) with<br>(under-layer or<br>underlayeror or under<br>adj layer or lower-layer<br>or lowerlayer or lower<br>adj layer)   |   |    |    |                     |
| S211 | 31 | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>cause with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>(under-layer or<br>underlayeror or under<br>adj layer or lower-layer<br>or lowerlayer or lower<br>adj layer) with (locat\$3<br>or position or site or<br>area)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>09:48 |
| S212 | 15 | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>cause with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>(under-layer or<br>underlayeror or under<br>adj layer or lower-layer<br>or lowerlayer or lower<br>adj layer) with (locat\$3<br>or position or site or<br>area) and (classify\$4<br>or classification or class<br>or categor\$6) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>09:52 |



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|------|----|---|---|----|----|---------------------|
| S213 | 12 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (under-layer or underlayer or under1 adj layer or lower-layer or lowerlayer or lower adj layer) with (locat\$3 or position or site or area) and (classify\$4 or classification or class or categor\$6) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>09:55 |
| S214 | 15 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (under-layer or underlayer or under adj1 layer or lower-layer or lowerlayer or lower adj layer) with (locat\$3 or position or site or area) and (classify\$4 or classification or class or categor\$6) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>09:55 |

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|------|----|---|---|----|----|---------------------|
| S215 | 0  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with located with (under-layer or underlayeror or under adj1 layer or lower-layer or lowerlayer or lower adj layer) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:13 |
| S216 | 14 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with located with (under-layer or underlayeror or under adj1 layer or lower-layer or lowerlayer or lower adj layer)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:14 |
| S217 | 1  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with located with (under-layer or underlayeror or under adj1 layer)   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:28 |

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|------|-----|---|---|----|----|---------------------|
| S218 | 2   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (posit\$4 or locat\$4) with (under-layer or underlayeror or under adj1 layer)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:29 |
| S219 | 31  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayeror or under adj1 layer)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:30 |
| S220 | 158 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj1 layer)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:34 |
| S221 | 26  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj1 layer) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>10:34 |

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|------|---|---|---|----|----|------------------|
| S222 | 9 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (under-layer or underlayer or under adj layer) with (locat\$3 or position or site or area)                               | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 10:48 |
| S223 | 1 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (under-layer or underlayer or under adj layer) with (locat\$3 or position or site or area) and chemical\$2 with analy\$4 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 10:57 |
| S224 | 1 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with (under-layer or underlayer or under adj layer) with (locat\$3   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 10:58 |

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|      |   | or position or site or area) and chemical\$2 with analy\$4  |   |    |    |                  |
| S225 | 6 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with (under-layer or underlayer or under adj layer) with (locat\$3 or position or site or area) and (FIB or SAM or AES or EDS) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 11:00 |
| S226 | 0 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj layer) with (locat\$3 or position or site or area) and (FIB or SAM or AES or EDS) and (classify\$4 or classification or class or categor\$6)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 11:05 |
| S227 | 0 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj layer) and (FIB or SAM or AES or EDS) and (classify\$4 or classification or class or categor\$6)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/06/16 11:06 |

|      |     |   |   |    |    |                     |
|------|-----|---|---|----|----|---------------------|
| S228 | 7   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj layer) and (classify\$4 or classification or class or categor\$6)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>11:06 |
| S229 | 1   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (energy dispersive spectrometer or EDS) with ("0.1" or "0.2" or "0.3") and (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj layer) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>11:21 |
| S230 | 312 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (energy dispersive spectrometer or EDS) with ("0.1" or "0.2" or "0.3")   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>11:21 |

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|------|----|--|---|----|----|---------------------|
| S231 | 3  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (energy dispersive spectrometer or EDS) with ("0.1" or "0.2" or "0.3") and (defect or fail\$3 or fault or anomaly or malfunction \$2 or error or problem or disorder or abnormal \$5) with (under-layer or underlayer or under adj layer) | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>11:22 |
| S232 | 52 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with (under-layer or underlayer or under adj layer)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>12:57 |
| S233 | 14 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) near (under-layer or underlayer or under adj layer)  | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>12:57 |

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| S234 | 16  | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5 or loss) near (under-layer or underlayer or under adj layer)          | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>13:05 |
| S235 | 2   | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5) with cause with (die or semiconductor or wafer or chip or IC or integrated adj circuit) and (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5 or loss) near (under-layer or underlayer or under adj layer) not S233 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>13:10 |
| S236 | 159 | (defect or fail\$3 or fault or anomaly or malfunction\$2 or error or problem or disorder or abnormal\$5 or loss) with (die or semiconductor or wafer or chip or IC or integrated adj circuit) with (under-layer or underlayer or under adj layer) not S233   | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>13:16 |



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| S237 | 22 | (determin\$3 or monitor<br>\$3 or indicat\$3 or<br>detect\$3 or identif\$4<br>or sens\$3 or measur\$6<br>or inspect\$4) with<br>(defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5 or loss)<br>with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>with (under-layer or<br>underlayer or under<br>adj layer) not S233        | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>13:17 |
| S238 | 39 | (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5) with<br>cause with (die or<br>semiconductor or<br>wafer or chip or IC or<br>integrated adj circuit)<br>and (defect or fail\$3 or<br>fault or anomaly or<br>malfunction\$2 or error<br>or problem or disorder<br>or abnormal\$5 or loss)<br>with (under-layer or<br>underlayer or under<br>adj layer) not S233 | US-PGPUB;<br>USPAT; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2008/06/16<br>13:23 |

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